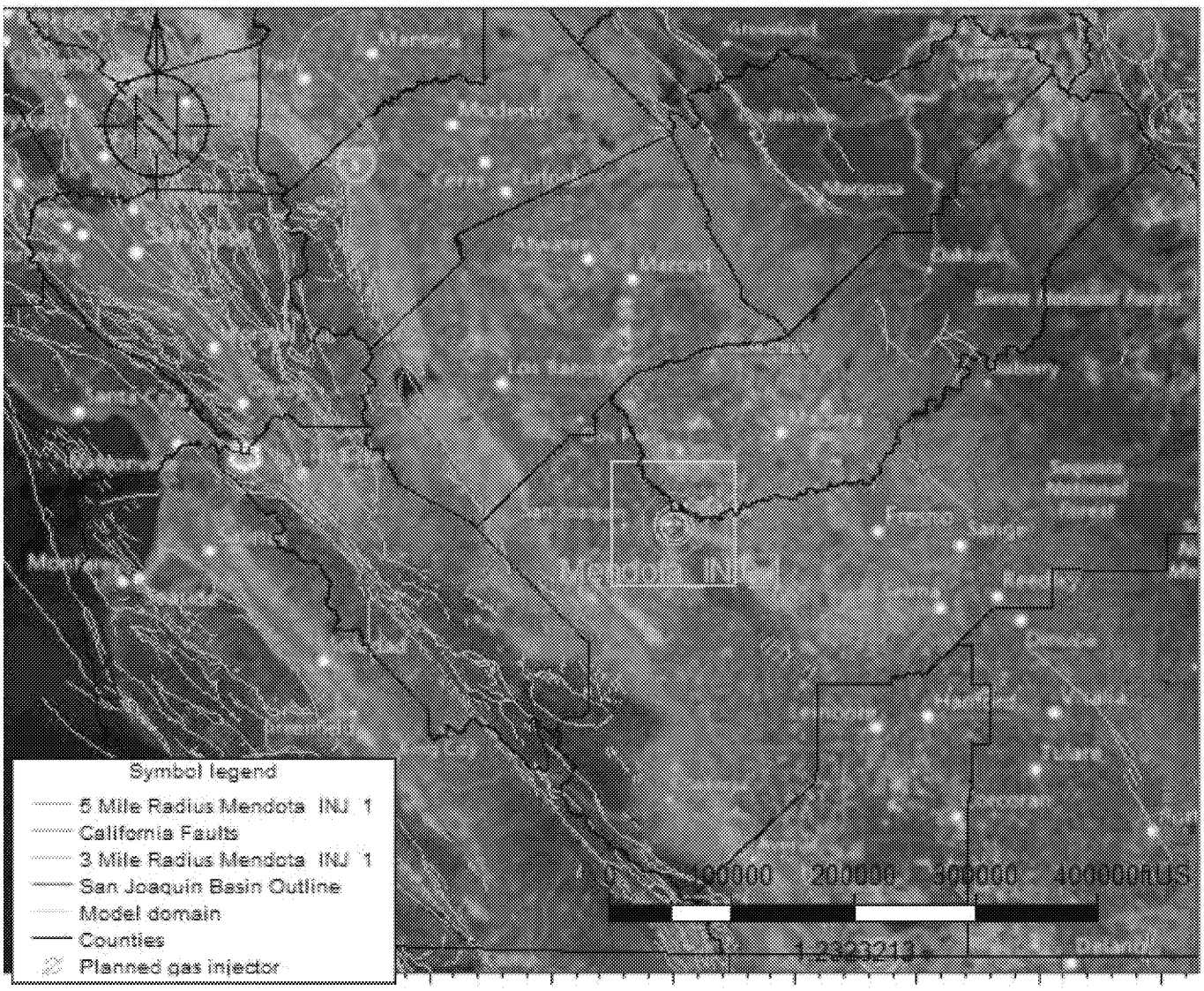
Proposed Project Overview

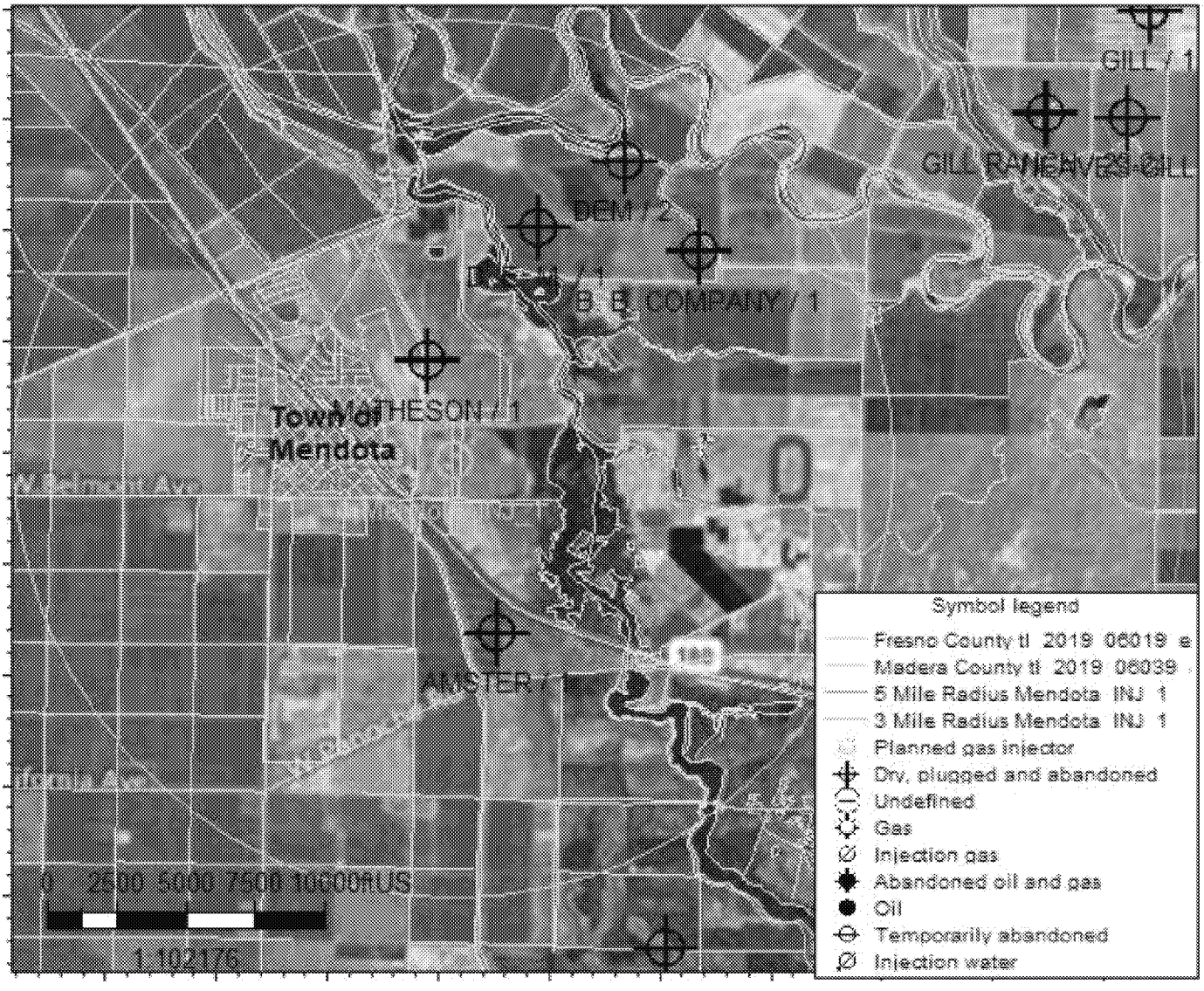
Clean Energy Systems (CES) – Mendota Site
400 Guillen Parkway
Mendota, CA 93640-0099

CES proposes to convert a former biomass power plant located in Mendota, California (35 miles west of Fresno, CA) into a carbon negative energy (CNE) plant. The biomass power plant was previously owned and operated by Covanta Energy and was shut down in 2015. The Mendota CNE plant would gasify local biomass waste to produce syngas, which would then be used to produce renewable hydrogen and electricity. The carbon dioxide (CO_2) produced during electricity generation would be captured and injected deep underground via a Class VI well for geologic sequestration. Geologic sequestration is the process of injecting CO_2, captured from an industrial or energy-related source, into deep subsurface rock formations for long-term storage and is intended to reduce the quantity of CO_2 in the atmosphere. The anticipated CO_2 mass to be captured and injected at the site is 350,000 tons/year over a period of 12-20 years (4.2 to 7 million tons total).

CES applied to the USEPA, Region 9 for an Underground Injection Control (UIC) Class VI injection well permit that would authorize construction and operation of one Class VI injection well. If the permit is authorized, CO_2 injection would occur into the primary injection interval sand sequence identified as the Second Panoche Sandstone, at depths between about 8,900 feet and 9,900 feet below ground surface. The Second Panoche Formation is confined above by the approximately 130-foot thick First Panoche Shale and below by the approximately 900-foot thick Third Panoche Shale. During and after the injection phase, CES would be required to carefully monitor the site to ensure continued protection of underground sources of drinking water. CES would also be required to properly plug and abandon the injection well and all monitoring wells before final post-injection site closure.

Location Maps




GILL / 1
GILL RANCH V2S-GILL
DCM / 2
B B COMPANY / 1
MATHESON / 1
Town of Mendota
AMSTER /
Symbol legend
Fresno County tl_2019_06019_e
Madera County tl_2019_06039
5 Mile Radius Mendota_INJ_1
3 Mile Radius Mendota_INJ_1
Planned gas injector
Dry, plugged and abandoned
Undefined
Gas
Injection gas
Abandoned oil and gas
Oil
Temporarily abandoned
Injection water
0 2500 5000 7500 10000FEET
1:102176